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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,794	03/04/2004	Atsuhisa Nakashima	118905	5218
25944	7590	06/01/2005	EXAMINER	
<b>OLIFF &amp; BERRIDGE, PLC</b> P.O. BOX 19928 ALEXANDRIA, VA 22320				CULLER, JILL E
		ART UNIT		PAPER NUMBER
		2854		

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	Applicant(s)	
10/791,794	NAKASHIMA ET AL.	
Examiner	Art Unit	
Jill E. Culler	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 04 March 2004.  
2a) This action is FINAL.                    2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) 18 is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-17 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) 1-18 are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on 21 July 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20040304.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-17, drawn to an inkjet printer with a control unit which locates an end portion of a printing medium in a recess portion on a belt, classified in class 347, subclass 104.
  - II. Claim 18, drawn to an inkjet printer having a guide member disposed inside a transportation belt, classified in class 347, subclass 104.
2. The inventions are distinct, each from the other because of the following reasons:  
Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the belt does not include a guide portion. The subcombination has separate utility such as in an apparatus which does not control the printing medium to be located in a recess portion.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Scott Schulte on May 18, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this Office action. Claim 18 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Specification***

4. The disclosure is objected to because of the following informalities:

The specification is replete with grammatical errors. For examples see page 1, lines 17-18, the phrase 'paper supply portion capable of being stacked a plurality of sheets of paper', and page 2, lines 5-6, 'ink absorbing members is disposed'. These and similar errors should be addressed throughout the specification.

Appropriate correction is required.

***Claim Objections***

5. Claims 3-13 and 15-17 are objected to because of the following informalities:

In claim 3, on line 4, the phrase "the first recess portions includes" has incorrect grammar. It appears that it should be "the plurality of first recess portions includes" instead.

In claim 4, on line 1, the word "of" between "to" and "claim" appears to be unnecessary.

In claim 5, on line 7, the word "a" between "in" and "width" appears to be unnecessary.

In claim 6, on line 4, it appears that the word "portions" should be singular "portion". Also on line 7, the word "a" between "in" and "width" appears to be unnecessary.

In claim 7, on line 1, the word "of" between "to" and "claim" appears to be unnecessary.

In claim 8, on line 1, the word "of" between "to" and "claim" appears to be unnecessary.

In claim 9, on line 8, it appears that the word "the" between "located in" and "specific" should be "a" instead.

In claim 10, on line 2, the phrase "all over the width" is unusual and does not specifically describe a particular width for the recess portion.

In claim 13, on line 5, there appears to be text missing between "than" and "total".

In claim 15, on line 3, it appears that the word "head" should be pluralized.  
"heads".

In claim 16, on line 3, it appears that the word "length" should be pluralized,  
"lengths".

In claim 17, on line 6, the word "with" appears to be unnecessary.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2, 5-6, 9, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,733,109 to Lorenz et al.

With respect to claim 1, Lorenz et al. teaches an inkjet printer comprising: a plurality of rollers, 2; an endless transportation belt, 1, laid on the plurality of rollers, see column 3, lines 4-8, and defining a first recess portion, 9, which extends in a direction perpendicular to a printing medium transporting direction, in an outer circumferential surface thereof; see column 3, lines 25-28, a belt rotating mechanism which applies a rotating force to the transportation belt; a recording unit, 6, which is disposed to face the

transportation belt and forms an image, see column 3, lines 15-17; a printing medium supply mechanism, 4, 5, which supplies a printing medium onto the transportation belt; and a control unit which controls at least one of the belt rotating mechanism and the printing medium supply mechanism so that when the printing medium is on the transportation belt, one of a front end portion and a rear end portion of the printing medium is located in the first recess portion. See column 3, lines 35-38.

With respect to claim 2, Lorenz et al. teaches that when the printing medium is on the transportation belt, the other of the front end portion and the rear end portion is located in the first recess portion. See column 3, lines 35-42 and Figure 1.

With respect to claim 5, Lorenz et al. teaches that the transportation belt defines at least two second recess portions, 9, which extend in the printing medium transporting direction and are connected with the first recess portion, in the outer circumferential surface thereof; and the printing medium supply mechanism supplies the printing medium, which is smaller in width than the transportation belt, onto the transportation belt so that when the printing medium is on the transportation belt, both side portions of the printing medium along the printing medium transporting direction are located in the second recess portions, respectively. See column 3, lines 35-42 and Figure 1.

With respect to claim 6, Lorenz et al. teaches that the transportation belt defines at least one second recess portion, which extends in the printing medium transporting direction and is connected with the first recess portion, in the outer circumferential surface thereof; and the printing medium supply mechanism supplies the printing medium, which is smaller in width than the transportation belt, onto the transportation

belt so that when the printing medium is on the transportation belt, one of both side portions of the printing medium along the printing medium transporting direction is located in the second recess portion and the other of the both side portions overreaches a side portion of the transportation belt. See column 3, lines 35-42 and Figure 1.

With respect to claim 9, Lorenz et al. teaches the first recess portion is a plurality of first recess portions; and the control unit controls the at least one of the belt rotating mechanism and the printing medium supply mechanism so that when the printing medium is on the transportation belt, the one of the front end portion and the rear end portion of the printing medium is located in a specific first recess portion. See column 3, lines 35-42 and Figure 1.

With respect to claim 16, Lorenz et al. teaches that in any case of using one of plural kinds of printing media having different lengths in the printing medium transporting direction from each other, the control unit controls the at least one of the belt rotating mechanism and the printing medium supply mechanism so that when the printing medium used is on the transportation belt, the one of the front end portion and the rear end portion of the printing medium used is located in the first recess portion. See column 3, lines 29-30, lines 35-42 and Figure 1.

With respect to claim 17, Lorenz et al. teaches that the control unit controls the at least one of the belt rotating mechanism and the printing medium supply mechanism so that when the printing medium is on the transportation belt, the one of a front end portion and a rear end portion of the printing medium is located in the first recess

portion without contacting with a bottom surface of the first recess portion. See column 3, lines 35-42 and Figure 1.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al.

With respect to claim 3, Lorenz et al. teaches that the first recess portion is a plurality of first recess portions. Lorenz et al. also teaches that different recess portions are provided for different sheet formats. See column 3, lines 29-30. Therefore, although Lorenz et al. does not explicitly teach that the first recess portions includes plural types of the first recess portions different from each other in length in a width direction of the transportation belt, one having ordinary skill in the art at the time of the invention would find it obvious to provide recess portions differing from each other in length in a width direction of the transportation belt in order to more efficiently accommodate sheets of different formats in the same device.

With respect to claim 10, although Lorenz et al. does not explicitly teach that the specific first recess portion extends all over the width of the transportation belt, one having ordinary skill in the art at the time of the invention would find it obvious to provide

a recess portion extending across the width of the transportation belt in order to accommodate a sheet having that same width.

10. Claims 4, 7-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. in view of U.S. Patent No. 5,291,227 to Suzuki.

With respect to claims 4, 7 and 8, Lorenz et al. teaches all that is claimed, as in the above rejection of claims 1-2, 5-6, 9, 16 and 17, except for ink absorbing members on bottom surfaces of the recess portions.

Suzuki teaches an inkjet printer having a recess portion, 6, and an ink absorbing member, 7, located opposite the recording unit, 1. See column 3, lines 57-62.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the ink absorbing member of Suzuki with the recess portions of Lorenz et al. in order to trap the excess printing ink and prevent it from staining the printing medium.

With respect to claim 11, Lorenz et al. teaches all that is claimed, as in the above rejection of claims 3 and 10, except for ink absorbing members disposed on both sides of the transportation belt, respectively.

Suzuki teaches an inkjet printer having a recess portion, 6, and an ink absorbing member, 7, located opposite the recording unit, 1. See column 3, lines 57-62.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the ink absorbing members of Suzuki on the sides of the

transportation belt of Lorenz et al. in order to trap the excess printing ink at the edges and prevent it from staining the printing medium.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. in view of Suzuki and U.S. Patent No. 4,207,578 to Marinoff.

Lorenz et al. teaches all that is claimed, as in the above rejection of claims 3 and 10, except for a guide member disposed inside the transportation belt; projection portions, which project from both side surfaces of the guide member, wherein the guide member and the projection portions define third recess portions; and ink absorbing members disposed in the third recess portions, respectively.

Marinoff teaches an inkjet printer having a transportation belt, 74, and a guide member, 83, disposed inside the transportation belt, with projection portions which project from the sides of the guide member, wherein the guide member and the projection portions define a recess portion, 82.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the guide member and projection portions of Marinoff with the transportation belt of Lorenz et al. in order to better support the edges of the recess portions and aid in the placement of the printing medium.

Suzuki teaches an inkjet printer having a recess portion, 6, and an ink absorbing member, 7, located opposite the recording unit, 1. See column 3, lines 57-62.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the ink absorbing members of Suzuki in the recess portion of

Lorenz et al., as modified by Marinoff, in order to trap the excess printing ink and prevent it from staining the printing medium.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. in view of Marinoff and Suzuki as applied to claim 12 above, and further in view of U.S. Patent No. 6,672,705 to Kitahara.

Lorenz et al., Marinoff and Suzuki teach all that is claimed, as in the above rejection of claim 12, except that the recording unit includes a plurality of inkjet heads, which eject ink to form the image; and the ink absorbing members have a length, which is equal to or larger than total length of the inkjet heads, in the printing medium transporting direction.

Kitahara teaches an inkjet printer having a recording unit, 3, including a plurality of inkjet heads, 35a-38f, which eject ink to form the image. See column 7, line 29 - column 9, line 43 and Figures 2 and 4 in particular.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the inkjet heads of Kitahara with the modified invention of Lorenz et al. in order to print a more precise image. It would also have been obvious to size the ink absorbing members of Lorenz et al. as modified by Marinoff and Suzuki to have a length equal to or larger than the total length of the inkjet heads in order to be able to absorb excess ink ejected from any or all of the printing heads at the same time.

13. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. in view of Kitahara.

Lorenz et al. teaches all that is claimed, as in the above rejection of claims 1-2, 5-6, 9, 16 and 17, except that the recording unit includes a plurality of inkjet heads, which eject ink to form the image and the first recess portion has a length equal to or larger than that of one of the ink jet heads, in the printing medium transporting direction.

Kitahara teaches an inkjet printer having a recording unit, 3, including a plurality of inkjet heads, 35a-38f, which eject ink to form the image, see column 7, line 29 - column 9, line 43 and Figures 2 and 4 in particular, and a transportation belt having a recess portion with a length equal to or larger than that of one of the ink jet heads in the printing medium transport direction. See column 20, lines 59-67 and Figure 30.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the inkjet heads of Kitahara with the invention of Lorenz et al. in order to print a more precise image and to size the recess portions to have a length equal to or larger than that of the inkjet heads, as taught by Kitahara, in order to have less chance of staining the printing medium.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,040,000 to Yokoi and U.S. Patent No. 6,239,817 to Meyer each teach a printer having obvious similarities to the claimed subject matter.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-Th 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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ANDREW H. HIRSHFELD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800